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MAURICE J JONES
MOTOROLA INC
INTELLECTUAL PROPERTY DEPT SUITE R3108
P O BOX 10219
SCOTTSDALE, AZ 852710219

EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 21

Application Number: 09/071,046

Filing Date: 05/04/98

Appellant(s): JURGEN REINOLD, DAVID KNAPPENBERGER, MATHEW CUCUZELLA,
JACK SCOTT GERANEN, JEFF LEE, AND MICHAEL E. WILLIAMS

Kevin D. Wills
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 03/19/03.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief has a minor typo. Claim 14 should be only appeared in the 103 rejection of Tsumori and Schein, not in the rejection 102.

(4) *Status of Amendments After Final*

No amendment after final has been filed.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

The rejection of claims 1-30 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) *ClaimsAppealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

5,650,827	TSUMORI ET AL.	7-1997
6,002,394	SCHEIN ET AL.	12-1999
5,841,979	SCHULHOF ET AL.	11-1998

(10) *Grounds of Rejection*

1. The following ground(s) of rejection are applicable to the appealed claims:
2. Claims 1-5, 9-13, 16-18, and 21-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsumori et al. (U.S. Patent No. 5,650,827).

Regarding claim 1, Tsumori discloses a system for distributing audio content of a digital audio signal to an analog wireline device (Fig. 1, and col. 3/line 55 to col. 4/line 20 for distributing a digital signal from a broadcast satellite to a television receiver--as an analog wireline device) comprising:

an audio input interface receiving the digital audio signal from a plurality of sources and identifying an audio bitstream, i.e., a BS tuner 23 of Fig. 1 acts as an audio input interface for “tuning” and receiving HDTV signal (video and audio) which equates to the digital audio signal (col. 5/lines 14-19).

The limitation regarding the “plurality of sources” reads on receiving various satellite channels at BS converter 22 and tuner 23. The tuner inherently tunes to different channels that carry different programming material. Each of the different programs have emanated from different “sources” since the “source” of one network’s programming is different than the “source” of another network. Furthermore, there are two distinct “sources” for providing satellite services. For example, a Japan Broadcast Satellite service is DIFFERENT from a satellite news broadcast from Hong Kong or Korea.

The limitation of “a plurality of encoding methods that correspond to the different sources” is also disclosed by Tsumori since figure 1 clearly shows that the output of BS tuner 23 (which is a channel indicative of a “source” as discussed above) can receive a digital signal using encoded either by PSK (PSK demodulator 25) or by a MUSE encoder (MUSE converter 51).

Tsumori further shows CS decoder 53 and JSB decoder 52. Therefore, the receiver of Tsumori is *specifically designed* to receive, decode and reproduce signals from a plurality of different encoding techniques. Furthermore, the “plurality of encoding methods (PSK, MUSE, CS, JSB) inherently “correspond” to the “source” or channels from which the signals originate.

The limitation regarding the audio decoding unit connected to the audio input interface and decoding the audio bitstream reads on the operation of decoders 25 (PSK demodulator) and 51 (MUSE converter). See col. 4/lines 51-57 & col. 5/lines 28-34.

The limitations of an audio digital-to-analog converter connected to the audio decoding unit and converting the audio bitstream to an analog audio signal is shown as D/A converter 26 connected to a PSK demodulator for converting digital audio signals to analog audio signals (col. 4/lines 26-57) and the output of the MUSE converter 31c.

The limitations regarding the audio output interface connected to the audio digital-to-analog converter and distributing the analog audio signal to the analog wireline device is shown as audio output interface 37 connected via switch 32c to receive the selected audio output (Fig. 1, col. 6/lines 21-67).

As for claims 2 and 10, Tsumori further discloses to include “an audio digital decryption unit connected to the audio input interface and decrypting the audio bitstream” and “a video digital decryption unit connected to the video input interface and decrypting the video bitstream”, i.e., the MUSE converter, JSB decoder and CS decoder connecting to input interfaces act as decrypting units in scrambling/describing video and audio digital signals to provide analog video/audio signals at the outputs (col. 5/lines 14-47).

Regarding claims 3 and 11, Tsumori further includes “an audio analog decryption unit connected to the audio digital-to-analog converter and decrypting the analog audio signal” and “a video analog decryption unit connected to the video digital to analog converter and decrypting the analog video signal”, i.e., an digital-to-analog converter 26 connecting to the decrypting units is used therein for providing analog sounds (Fig. 1, item 44; and col. 7/lines 5-19).

With respect to claims 4-5, 12-13 and 18, Tsumori further discloses “wherein the audio and video (for claim 12) output interface distributes the analog audio signal to multiple devices”, i.e., output portions comprise a plurality outputs for audio and video connections to other devices such as to a TV screen, a loudspeaker or to a video tape recorder (col. 5/line 57 to col. 6/line 20).

Regarding claim 9, Tsumori discloses a system for distributing video content of a digital video signal to an analog wireline device (Fig. 1, and col. 3/line 55 to col. 4/line 20).

The limitation of a “video input interface” reads on BS tuner 23 of Fig. 1 which receives an HDTV signal (video and audio) which is a digital video signal (col. 5/lines 14-19), and sources received at BS converter 22 via antenna 21 can be from either of the two separate satellite “sources” (“a broadcasting satellite” and “a communications satellite”, col. 4/line 57 to col. 5, line 12). There are two distinct sources for providing satellite services.

As discussed with respect to claim 1, a Japan Broadcast Satellite service is DIFFERENT from a satellite news broadcast from Hong Kong or Korea. The limitation “wherein the video bitstream comprises video data based on a plurality of encoding methods corresponding to the plurality of sources” reads on the BS tuner converter which can receive and process the digital video signal using either video processing 24, JSB decoder 52 or CS decoder 53 which are all different decoding methods.

The limitation regarding the digital to analog converter is inherent to the outputs of both 24 and 52 since the signal is delivered to video processor 33 must be analog in order to be displayed on the picture tube 36.

The limitation regarding the video output interface reads on the processor 33 which delivers the output video signals to “analog wireline device” 36 (i.e., the display)

Regarding claim 16, this claim, which is a combination of claims 1 and 9, is rejected for the reasons given in the scope of the combination of claim 1 and claim 9 as already disclosed above.

As for claim 17, Tsumori further discloses to include “a splitter receiving a digital input signal and splitting the digital input signal into the digital audio signal and the digital video signal”, i.e., the BS tuner acts as a splitter therein in providing separate digital video and digital audio signals (Fig. 1/item 23).

As for claims 21-30, these method claims for applying the system as described above are rejected for the reasons given in the scope of system claims 1-5, 9-13, and 17 as already disclosed above.

3. Claims 6, 14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsumori et al (U.S. Patent No. 5,650,827/ or “Tsumori”) in view of Schein et al (U.S. Patent No. 6,002,394/ or “Schein” hereinafter).

Regarding claims 6, 14 and 19, in further view of claim 1 and 9 above, Tsumori does not disclose the steps of “wherein the audio input interface receives the digital audio signal from a local storage device” and “wherein the video input interface receives the digital video signal from a local storage device”. It is noted that Tsumori shows a local mass storage device in figure 1 (VTR 70), but is silent as to the device being digital. Utilizing a local digital source such as from a CD ROM disk or a hard drive is well known in the art as shown by Schein (see Fig. 1, and col. 4/line 40 to col. 5/line 51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the VTR 70 of Tsumori with a

digital source as shown in Schein in order to utilize the local digital source thereby increasing the quality of the output video and audio compared to the analog VTR of Tsumori.

4. Claims 7-8, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsumori et al (U.S. Patent No. 5,650,827/ or “Tsumori”) in view of Schulhof et al (U.S. Patent No. 5,841,979).

Regarding claims 7-8, and 15, Tsumori does not further mention the steps of “wherein the audio input interface receives the digital audio signal produced by a text-to-speech application” and “wherein the audio input interface receives the digital audio signal produced by a digital musical instrument” and “wherein the video input interface receives the digital video signal produced by a digital video camera” as claimed; however, Schulhof teaches in his enhanced delivery of audio data the same technique for users to receive “the digital audio signal produced by a text-to-speech application” (Schulhof, Figs. 1-2, and col. 6/lines 47-65) and “the digital audio signal produced by a digital musical instrument”, i.e., a Sony portable digital recordable mini-CD (Schulhof, col. 2/line 65-col. 3/line 38). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tsumori’s system with Schulhof’s disclosed technique in using a text-to-speech application and the concept of utilizing digital audio signal from digital musical instruments, such as a Sony portable digital recordable mini-CD or a digital camera in order to increase the number and type of peripherals used thereby increasing the versatility of the device.

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsumori et al (U.S. Patent No. 5,650,827/ or “Tsumori”) in view of Schein et al (U.S. Patent No. 6,002,394/ or “Schein” hereinafter) and Schulhof et al (U.S. Patent No. 5,841,979).

Regarding claim 20, in further view of claim 19 above, Tsumori and Schein do not further mention the step of “wherein the video input interface receives the digital video signal produced by a digital video camera” as claimed; however, Schulhof teaches in his enhanced delivery of audio data an exact same technique for users to receive “the digital audio signal produced by a digital musical instrument”, i.e., a Sony portable digital recordable mini-CD (Schulhof, col. 2/line 65-col. 3/line 38). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tsumori’s system with Schulhof’s disclosed technique in using the concept of utilizing digital audio signal from digital musical instruments, such as a Sony portable digital recordable mini-CD or a digital camera in order to increase the number and type of peripherals used thereby increasing the versatility of the device.

(11) Response to Argument

Applicants argue the major issues as the following:

- 1) HDTV is the only digital source disclosed by Tsumori;
- 2) HDTV employs only a single encoding method;
- 3) The combination does not provide Appellants’ claimed invention; and
- 4) There is no motivation or suggestion contained in the cited art to combine the teachings of the references.

Following are the responses from the Examiner.

1) HDTV is not the only digital source disclosed by Tsumori.

The ability of Tsumori to tune to different channels reads on applicant's limitation of a "plurality of sources" since each channel and sources receiving at BS converter 22 via antenna 21 can be either from two separate satellite sources called "a broadcasting satellite" and "a communications satellite" (col. 4/line 57 to col. 5, line 12). As broadly claimed, all programming in Tsumori originated from different studios and networks, therefore meeting the broadly claimed "plurality of sources". There are two distinct sources for providing satellite services. For example, a Japan Broadcast Satellite service is DIFFERENT from a satellite news broadcast from Hong Kong or Korea.

2) HDTV ~~does not~~ employ only a single encoding method.

Based on the explanation above in section 1, "the HDTV employs only a single encoding method" as noted is not considered persuasive because Appellants refer to an incorrect "source" to begin with. As discussed in 1) above, HDTV is not "the source". Furthermore, a plurality of sources as noted above uses different encoding techniques, at least two in this Tsumori's reference. Tsumori discloses a BS tuner converter can receive the digital signal using either a MUSE converter 51: dealing with Japanese compression algorithm technique for HDTV (Newton Dictionary) for Phase Shift Keying PSK and Pulse Code Modulation PCM--technique for handling digital video & audio signals using Time Division Multiplexing TDM technique (col. 5/lines 24-34) or a JSB decoder 52: dealing with compressing and expanding for video and audio signals, provides HDTV video signal, demodulates PSK modulated and PCM sound signal, using frequency division multiplexing (FDM) (col. 5/lines 34-43). There are at least two distinct encoding techniques, i.e., a TDM encoding technique or a FDM encoding technique, for video and audio digital signals for handling correspondingly signals from at least two different

sources as mentioned above. Tsumori anticipates this limitation since Tsumori specifically discloses plural separate decoders (see figure 1) in order to handle signals encoded in different formats.

3) Based on the discussion above, the combination does provide Appellants' claimed invention.

Tsumori discloses most of each and every limitation of the claimed invention for claims 1-5, 9-13, 16-18 and 21-30. As for claims 6, 14 and 19, Tsumori does not further teach that the audio and video input interface receives the digital audio and video signal from a local storage device; however, it is well known in the art that in order to expand the versatility of sources for receiving at the terminal unit, a PC is incorporated for providing accesses to a local storage device such as a CD-ROM or a hard disk drive for offering sources to that terminal unit. Thus, an incorporation of a PC-TV as suggested by Schein (col. 1/lines 20-65) is proper and valid as users prefer to interactively access additional information from a variety of sources, i.e., search, retrieve, select and interact with TV schedule information located at a remote database, a computer network or on-line service and they do not want to limit themselves to a single source for entertainment, wherein including any type of recording and/or local storage device (analog or digital) (Schein, col. 5/lines 15-50). In the same view as above, for claims 7-8, 15 and 20, Tsumori does not offer the digital audio signal produced by a text-to-speech application, or by a digital musical instrument, or by a digital camera; however, Schulhof teaches the exact same limitation in order to expand the versatility of sources for receiving at the terminal unit as earlier mentioned (Schulhof, see Ground of Rejection above).

4) There is a motivation or suggestion contained in the cited arts to combine the teachings of the references.

Schein suggests an incorporation of a PC-TV into a television broadcast or distribution system (col. 1/lines 20-65) as users prefer to interactively access additional information from a variety of sources, i.e., search, retrieve, select and interact with TV schedule information located at a remote database, a computer network or on-line service and they do not want to limit themselves to a single source for entertainment, wherein including any type of recording and/or local storage device (analog or digital) (Schein, col. 5/lines 15-50). As for Schulhof reference, Schulhof suggests that video and audio delivering to users at an exponential growth rate (Schulhof, col. 1/lines 15-27); therefore, there is a need for an enhanced video and audio delivery apparatus and system (col. 2/lines 45-63) with a variety of digital storage devices (col. 3/lines 20-38) as additional means for storage and sources of digital audio and video signals, in addition to the suggestion of Schein as discussed above, such as digital text-to-speech application (col. 6/lines 47-65) and digital audio signal produced by a digital musical instrument as a Sony portable recordable mini-CD or any similar type for recording and storage (col. 3/lines 20-38).

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,
Krista Kieu-Oanh Bui

April 24, 2003

Conferees: Andrew Faile, and Chris Grant

MAURICE J JONES

MOTOROLA INC INTELLECTUAL PROPERTY DEPT

SUITE R3108 P O BOX 10219

SCOTTSDALE , AZ 85271-0219


Krista Kieu-Oanh Bui


ANDREW FAILE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600